



Biosolids in Florida

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**Division of Environmental Assessment and
Restoration**

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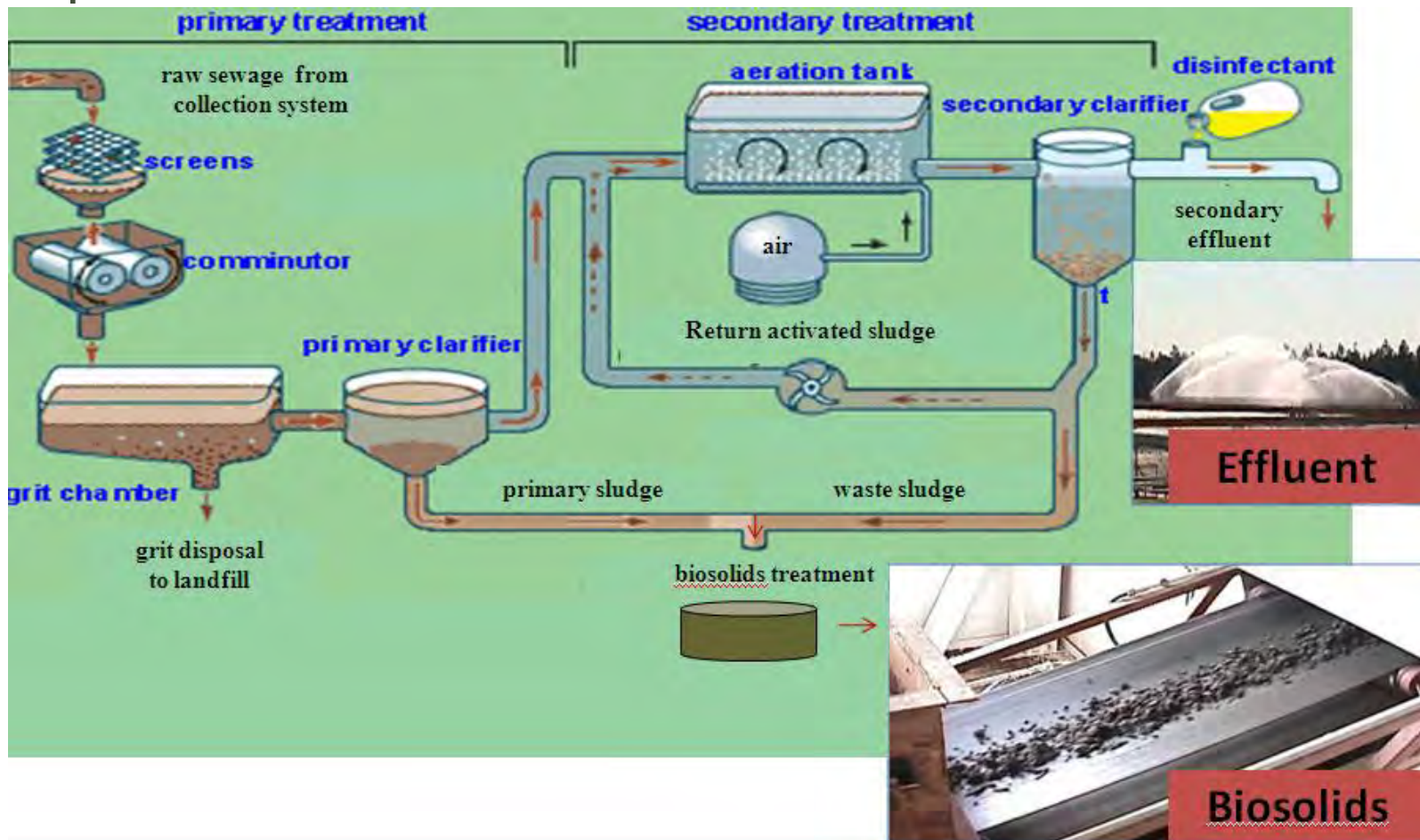
Overview

- **Biosolids Overview**
- **Biosolids Management in Florida**
- **Septage Management Facilities**
- **Biosolids Technical Advisory Committee**
- **Rule Development**



Biosolids Overview

The treatment of domestic wastewater produces two principal end products: effluent and biosolids





Classes of Biosolids

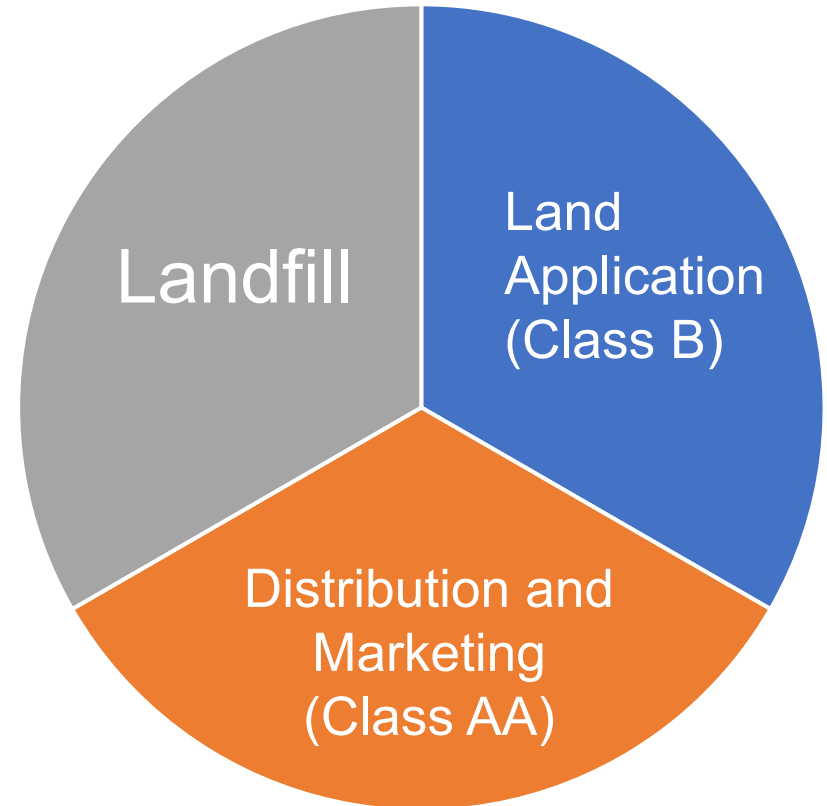
- **Two primary uses:**
 - **Land application**
 - **Typically Class B biosolids – minimum quality for beneficial use**
 - **Distribution and marketing as fertilizer**
 - **Class AA biosolids – highest quality for beneficial use**





Biosolids and Management in Florida

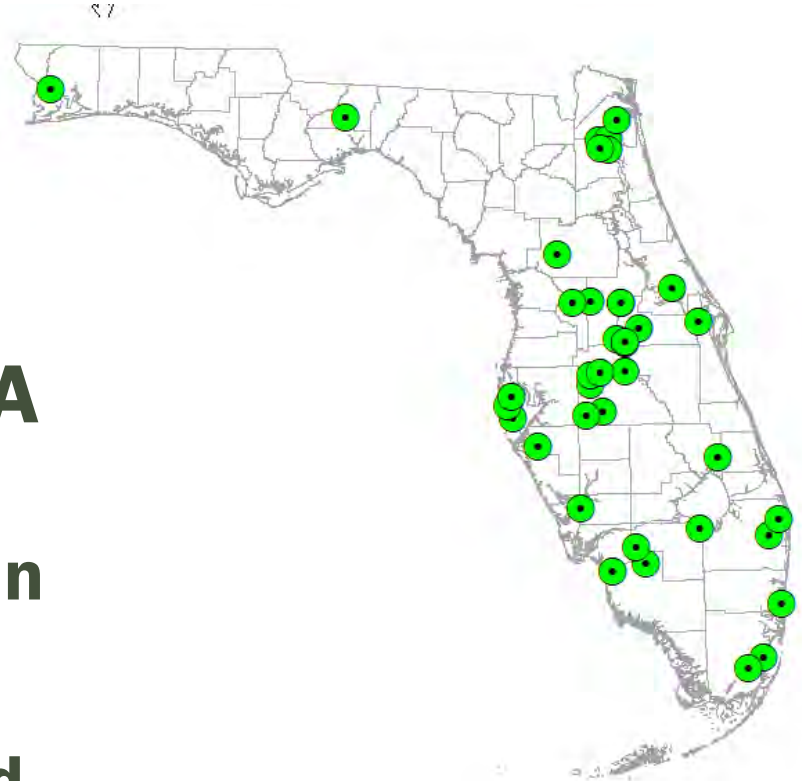
- **Estimated Total Production 340,000 dry tons/year.**
- **Approximately two-thirds are beneficially used and one third is landfilled.**





Class AA Biosolids - Distribution and Marketing

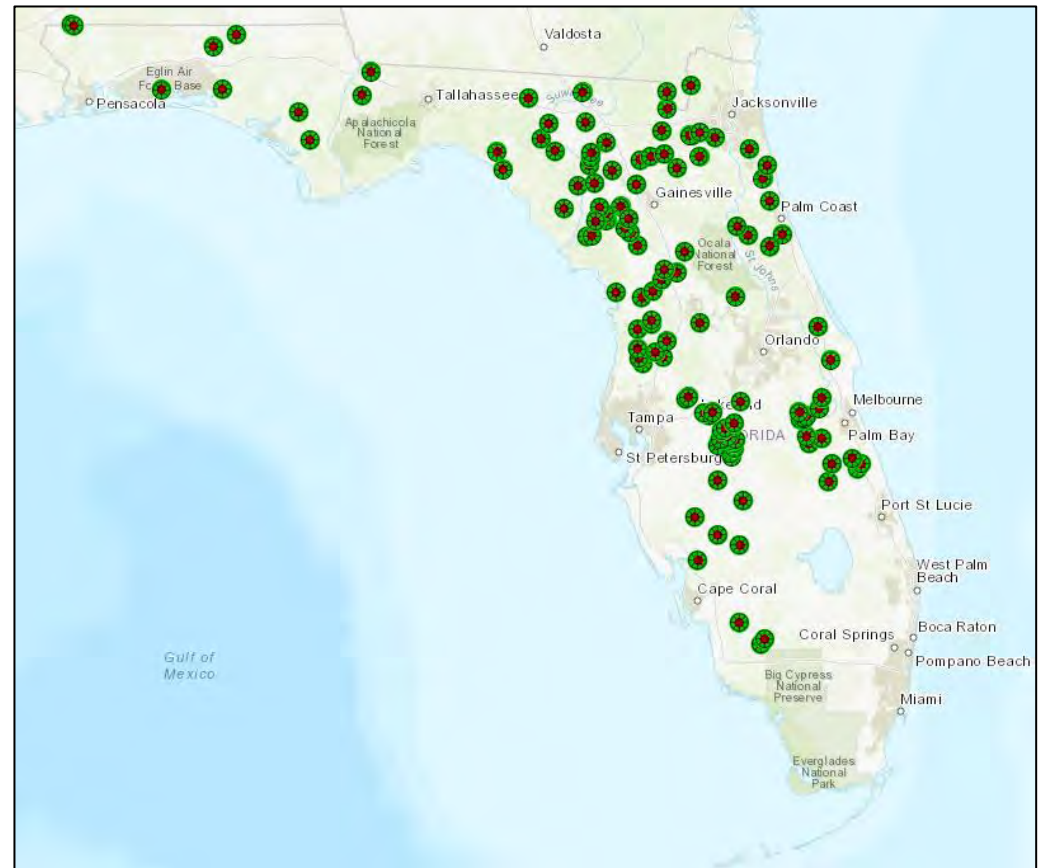
- **Distributed and marketed as a fertilizer**
- **Approximately 39 Florida facilities produce Class AA**
 - **192,879 dry tons distributed and marketed in Florida**
 - **26,717 dry tons distributed and marketed outside of Florida**





Class B Land Application

- **Approximately 140 permitted land application sites in Florida**
- **Haulers are the most common site permittees**
- **Utilities commonly contract with haulers/appliers instead of applying the biosolids themselves**





Septage Management Facilities

- **The land application of septage under Florida Department of Health (DOH) regulations was prohibited after June 30, 2016, affecting 80-90 entities regulated by DOH**
- **Under DEP rules, septage is regulated as “biosolids”**
- **Since 2016, DEP has issued 42 septage management facility permits**



State Regulations

Ch. 62-640, F.A.C.

- Land application permits include:

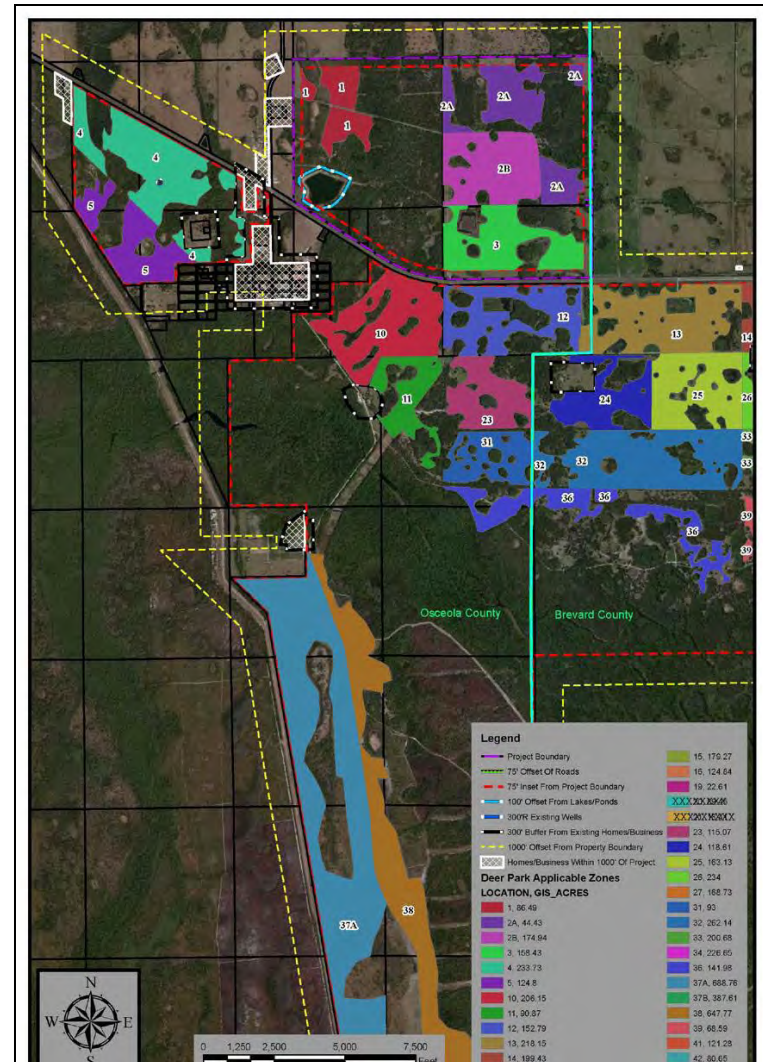
- Nutrient management plan
- Setback provisions
- Ground water depth provision
- Signage Requirements
- Storage requirements
- Public access, grazing, harvesting restrictions
- Runoff provisions
- Record keeping/reporting requirements





Example Application Site

- Site in Osceola and Brevard Counties, shows the application zones, setbacks, etc.
- This site has 30 application zones covering 5,736 acres
- The odd shapes of the application zones, or fields, primarily result from setback buffers (i.e., wetlands, surface waters, residences, etc.)





Biosolids Technical Advisory Committee

- **The Biosolids Technical Advisory Committee (TAC) convened in September 2018 to evaluate biosolids management and explore opportunities to better protect Florida's water resources.**
- **The TAC members represented stakeholders from environmental and agricultural industry experts, large and small utilities, waste haulers, consultants and academics.**
- **Each public meeting included an open public comment period, as well as discussion with experts among the TAC members, the audience and the Department**



TAC Recommendations

- **Permit biosolids in a manner that minimizes migration of nutrients, specifically phosphorus, to prevent impairment to waterbodies.**
 - **Establish the rate of phosphorus application based on site specifics, such as soil characteristics/phosphorus adsorption capacity, water table, hydrogeology, site use, distance to surface water;**



TAC Recommendations

- **Increase DEP inspection rate of land application sites;**
- **Develop monitoring protocols to detect nutrient migration;**
- **Develop and conduct biosolid and nutrient management research on nutrient run-off through surface and groundwater flow; and**
- **Promote innovative technology pilot projects for biosolids processing that could provide a wider range of beneficial end products.**



62-640, F.A.C.

- **Department published notice of rule development to amend Ch. 62-640, F.A.C. on March 22, 2019.**
- **Rule revisions incorporate the recommendations of the TAC**
- **Department will be holding at least three public workshops throughout the state beginning early to mid-summer.**



Proposed Revisions

- **TAC Recommendation – permit biosolids to minimize the migration of nutrients; establish rate of phosphorus application based on site specific characteristics**
- **Proposed revising NMP requirements:**
 - **Set application rate based on limiting nutrient**
 - **Consider soil capacity to hold phosphorus and the percent water extractable phosphorus (WEP) in biosolids**
 - **Comply with applicable BMAPs**
 - **Increase soil fertility monitoring frequency**
 - **Review NMP annually**



Proposed Revisions

- **Revise monitoring and reporting requirements to include:**
 - **WEP analysis**
 - **Require annual soil fertility testing to include soil phosphorus storage capacity**
 - **Add/revise surface water and groundwater monitoring requirements**
- **Limit use of sites based on depth to groundwater**



Contact Information

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